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Rebuilding After the Tornado

by J.H. Atkinson, Agricultural Economist*

The aftermath of the April tornados leaves major farm and family management problems to be solved. Some of the most important, and sometimes most difficult, involve farm buildings and the farm home.

Farm Buildings Other Than Dwelling

Many farm buildings become obsolete before they wear out - barns and ear corn cribs are examples on many farms. These buildings often have been adapted to other uses such as machinery storage or livestock feeding. When such buildings are destroyed it is often clear that they should not be replaced with identical structures. Even so, costly mistakes can be made and for this reason sufficient time should be devoted to the problem to gain information necessary to make a good decision.

What Type of Building Is Best?

In deciding what type of buildings to construct, obtain and study plans which are available through your Agricultural Extension Service or other agencies. Visit other farmsteads and talk to farmers who have put up buildings recently.

Building design should be dictated by the functions that buildings perform. Ask these questions to identify functions of buildings:

1. Does the building facilitate production or marketing? Dairy barns of certain specification are necessary for production of fluid milk. Grain bins reduce storage loss and enable grain to be sold or fed at a later date. A farrowing house may result in more pigs per sow per year than pasture farrowing. Machinery storage slows machinery depreciation.

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2. Does the building save labor? A confinement hog system requires much less labor than a pasture system. Labor for feeding livestock is affected both by the type of grain handling system and the type of feeding facility used.

3. Does the building make work easier? This may be essential for some farmers whose abilities have been affected by illness or accident. For all of us, making work easier may be desirable but the economics of individual situations may not permit it.

After identifying the functions you expect a building to perform, you are now ready to begin figuring how these functions can be furnished at the least cost. In principle, this means dividing building cost by estimated life and adding the other annual costs: repairs, insurance, interest and taxes. The annual use cost of different types of structures can then be compared. However, the importance of flexibility should not be overlooked. In planning for the future, try to get more flexibility by constructing buildings with these characteristics:

1. Shorter life and lower cost structures. You are "locked in" for a shorter time period, thus have more flexibility to make future changes.

2. Lower remodeling cost to change building use or function. In general, this means a building which can be converted to "four walls and a roof" relatively easily.

All else being equal, a structure with a shorter life and greater use flexibility would be preferred over one with a longer life and less use flexibility. But in many cases, flexibility comes at a cost. A building designed and constructed to last 50 years likely has a lower annual repair and depreciation cost than one of a 20 year life. This probably was true of many of our existing barns built 50 years ago. Yet the purpose for which these barns were built (hay and ear corn storage and shelter for horses and cattle) largely disappeared a quarter century ago with a resulting realized (as opposed to anticipated) cost much higher than if more modest buildings had been used. Similarly, the stanchion-type dairy barn, when it was built, may have been anticipated to have a lower annual use cost than an alternative type barn which would have been more easily converted to some other use.

The point is that technology changes so fast that we need to be able to adapt quickly and relatively inexpensively to new uses and functions of buildings. Even if we have to pay somewhat more annual use cost, the increased flexibility may be worth it. Another way to handle flexibility is to reduce the number of years over which a building is depreciated. In view of changes which have taken place in the past decade or two with regard to grain handling and livestock production, a case can be made for not going over 15 to 20 years' depreciation for any farm building other than the dwelling. This means you assign no more value to a structure that will have a physical life of 40 years than to one that will last 20 years, except as there may be a difference in repair and upkeep.

Deciding on what kind of structure should replace those that have been destroyed is difficult. Functions have changed. Flexibility is important. Furthermore, construction methods and building designs have changed. You will want to do a thorough job of getting cost estimates. In the end, you likely will have completely different buildings than the

ones that were destroyed and you may decide that some will not be replaced at all because of the low value of the functions performed.

Should Buildings be Replaced or Not?

Let's examine more carefully this last point - should buildings be replaced or not?

In many cases old general purpose barns and other buildings have been used for livestock production. Labor requirements tended to be high and production sometimes was adversely affected. On the other hand, there was little or no alternative use of the buildings. The cost of using versus not using them was very low and farmers could thus justify the livestock enterprise.

But now that the buildings are gone, what should be done? Replace with high capital-low labor facilities? Shift to some other type of livestock production system (pasture farrowing rather than confinement)? Drop the livestock enterprise? The answer will depend largely on the length of planning horizon of the individual farmer in relation to expected returns. Two questions bear on this: (1) How long will it take the building investment to pay off, and (2) How long does the present operator expect to continue farming? If the pay-off period is longer than the remaining active farming life of the operator, a third question must be asked: Does the investment fit the farm? In other words, if the farm were to be sold before the building paid out, would the improvement add more than its remaining cost? (This also is an important question even though the operator expects to remain active for longer than the pay off period. He may die or be forced to leave farming.) If the improvement is not likely to add what it cost to the value of the farm, it probably should not be built unless one is willing to risk some loss of capital.

When Not to Replace.

In what situation would a building not add at least its cost to the sale value of the farm? Here are some examples:

- 1) Unconventional buildings -
 - pop-corn or seed processing, or other specialty crops facilities
 - special design to accommodate physical disability
 - Hobby buildings, riding stable for example
- 2) Mis-matched buildings and acreage -
 - 6-bottom tractor and equipment storage on 120 acres
 - 1,000 head farrow to finish confinement hog production system on 40 acres
- 3) Mis-matched buildings and land type
 - dairy barn on 140 bushel corn land
 - beef breeding herd facilities on 120 bushel corn land
 - hog feeding facilities on rolling pasture land

There may be cases in which other alternatives are more attractive than rebuilding facilities for the same type of livestock production that had been carried on prior to loss of buildings. Here are some possibilities:

- 1) Rent or buy more land
- 2) Change livestock system - buy feeder pigs rather than raise them, shift from year-round confinement farrowing to summer pasture farrowing, shift from dairy to beef, etc.
- 3) Increase off-farm work
- 4) Trade for larger field machinery and equipment, do custom work in addition to your own farming operations

Repair or Replace?

Older buildings which are completely destroyed often pose less of a problem than those that are badly damaged. Insurance proceeds are less for partial losses, yet repair costs may be high relative to the use value of the structure. This forces the question "Should the building be repaired or torn down and replaced with a structure better suited for the function it is to perform?" There are no easy answers to this question but if the repair bill exceeds a third of the cost of a new structure, careful consideration should be given to rebuilding rather than repairing. These are the reasons why:

- 1) The old building, even in good repair might not be valued at more than half of the cost of a new replacement structure of different design.
- 2) The new structure probably will perform its function better than the old one.
- 3) Repair, tax and insurance costs likely will be higher on the old building.
- 4) General appearance of the farmstead likely will be improved and this will add to the sale value.
- 5) The function, and thus the estimated value, of a new building will be more readily apparent.
- 6) Location can be changed if desired.

This last point deserves consideration in construction of any new building. Before rebuilding, make a plat of the farmstead, obtain materials from the Extension Service on farmstead planning and figure out the best location for the new building in relation to existing structures.

Farm Dwelling

Rented Farms

Many farms in Indiana are being cash or share rented without the use of the dwelling which either stands empty or is rented for a modest sum. In many such cases the decision not to rebuild is clear-cut. It is more difficult to decide on whether to make extensive repairs. If such repairs run as much as several thousand dollars the decision on whether or not to repair should be made on the basis of the non-farm demand for such housing. Both sale and rental values should be considered. In some areas of the

state, a farm home in good repair will sell for \$15,000 to \$20,000 or more. In other areas, the price might be under \$10,000 besides being harder to sell. Consideration should be given to selling the damaged house "as is". The advantage in this is that the purchaser might use much of his own labor repairing the house and he can also remodel to suit his family needs.

What about dwellings occupied by cash or share tenants? Obviously, arrangements must be made for the remaining term of the lease but this need not dictate replacement of the house. Grain farms of 240 acres or even more are easily rented without buildings. Even if the farm has modest livestock facilities, it still may not be profitable in the long run to replace a dwelling on a farm that does not provide at least a 1-man job.

If the decision is made not to replace a house presently occupied by the tenant, here are some suggestions for interim housing:

- 1) Rent a near-by farm home.
- 2) If not too far away, rent a home or mobile home in town.
- 3) Place a mobile home on the farmstead.

Owner-Occupied Buildings

Owner-operators also face two tough decisions with regard to their dwelling:

- 1) Should we rebuild the farm home?
- 2) What should we build (size, design, type of structure)?

In deciding whether or not to rebuild, the basic question asked about other farm buildings is relevant. Will the probable sale price of the farm increase by the cost of the proposed house? If not, the farm family must decide whether to accept the resulting higher housing costs or make other arrangements. Young to middle aged families who plan to remain on the same farm indefinitely will not need to pay as much attention to resale value as older families. Persons 55 years old or over who already had planned to move off the farm upon retirement may very well not decide to rebuild on the farm.

If rebuilding is to be done, the size and type of house should be determined by both present and prospective size and composition of the family. The family whose kids are almost grown may decide on a small single level home - something easy to maintain and suitable for Mom and Dad in their retirement years. The young families with a couple of small children and more planned for the future will need to think of the size of house they will need in 5 to 10 years. They may want to over-build for present needs or design a home that can be easily enlarged when the need arises.

The alternatives of renting or using a mobile home for interim housing will need to be explored. It takes time to decide on building plans and even more time for construction - many families need to plan on at least 6 months.

The use of a mobile home deserves careful consideration. These units are available in various sizes and can be purchased either new or used. The small family which plans to stay on the farm for only a few more years might

find a mobile home to be quite comfortable and adequate. Some families might consider keeping the mobile home after rebuilding. It could serve as an apartment for teen age boys or as guest accommodations (for many families this means space for married children and grand-children to spend weekends and holidays!)

Increased size and comfort of mobile homes have come as a result of technology. Home building also has been affected by technology - pre-fabricated houses or components should be investigated. A variety of floor covering material is available with differing costs and characteristics with regard to durability, ease of cleaning and appearance. Heating-air conditioning systems need careful analysis, especially with recent and prospective shifts in costs of different energy sources. Siding materials selection can affect appearance, maintenance and initial cost. These and other similar decisions will take many hours of thought and study.

Financing

Lending institutions normally used by many farmers - banks, Production Credit Associations, the Federal Land Bank, insurance companies - usually have enough flexibility in their lending policy to assist farmers in emergency situations. By all means, keep your creditors informed about your financial situation and needs. Holders of a mortgage on farm real estate will have to be consulted about the use of insurance proceeds. Destruction of livestock facilities may not only create the need for additional funds for rebuilding but may also reduce income available for existing debt repayment, coming due this year. Hence, it may be necessary in some cases to arrange for deferred repayments and perhaps combine existing debt and new borrowings into a single loan.

Special credit arrangements are available in some areas of the state. These arrangements may allow farmers to borrow a higher percentage of their needs than is ordinarily available and at more favorable rates and terms. The local Farmers Home Administration should be contacted for information about loans of all types - operating, farm improvements and rural housing. Agencies of the departments of Health, Education and Welfare (HEW) and Housing and Urban Development (HUD) may also have special programs to assist in disaster areas.

Summary

Take sufficient time to identify and analyze various alternatives with regard to replacement or major repair of destroyed or damaged buildings. Keep in mind the question of whether the farm sale value will be increased by as much as the cost of new facilities. Be alert to the possibility of constructing buildings better designed than the old ones for the functions you want them to perform. Recognize that it hardly ever pays to build buildings that last 30-40 years. Technology changes so rapidly that buildings soon become out of date and either stand idle or continue in use as high-cost inefficient units. Pole-type and open structured pre-fabricated buildings have decided advantages. They are less expensive to build, have the flexibility for conversion to alternative uses and can be built so that tractors and equipment can be used inside the buildings. This reduces

labor involved in handling of materials or manure.

Dwelling replacement may not be economically sound on grain farms that are being rented. Replacement on owner operated farms will depend on individual family circumstances. As in the case of other buildings, keep in mind the consequences of building a dwelling which does not increase the value of the farm by at least its cost.

Special financing may be available, either from conventional lenders or such agencies as FHA, HUD or HEW.

Your local Agricultural Extension Service (county agent's office) can be of help to you by providing free technical assistance and publications.